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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,144

06/07/2006

Shigeyuki Takahashi

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24978 7590 06/09/2008

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EXAMINER

MANCUSO, HUEDUNG XUAN CAO

ART UNIT

PAPER NUMBER

2821

MAIL DATE

DELIVERY MODE

06/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,144	<b>Applicant(s)</b> TAKAHASHI, SHIGEYUKI	
	<b>Examiner</b> Huedung Cao Mancuso	<b>Art Unit</b> 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☒ Claim(s) 15-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/7/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ihara (US 2005/0146472).

As to claim 1, Ihara (figure 1) teaches an antenna structure 2 capable of receiving an external radio signal, said antenna structure comprising a magnetic path 21 that enables reception of magnetic flux 7 caused by an external radio signal, but makes it difficult for magnetic flux generated by resonance to leak to said outside of said antenna structure , said magnetic path being formed minimally by an antenna part, which is formed by at least one antenna core 9 part and a coil part 21 formed by winding of a conductive wire around said antenna core part, and a cover part disposed in a vicinity of said antenna part and covering at least a part of said antenna part, said antenna core part and cover part 3 being made of a soft magnetic material, and also said cover part being joined to said antenna part at both ends of said antenna core part of said antenna part see Ihara (figure 1, and paragraphs [0097-0098, 0187]).

As to claims 2-10, 12-14, wherein said cover part has a function of passing magnetic flux generated by resonance, wherein said cover part is connected via a joining part to said antenna

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core part of said antenna part, wherein a part of said substantially closed magnetic path formed by said antenna core part and said cover part of said antenna structure includes a part having a permeability that is different from said permeability of other parts, wherein said cover part covers said entire periphery of said antenna part, wherein said cover part is formed by a member having a thickness that is thinner than said maximum length of a cross-section of said center part of said antenna core part of said antenna part, wherein said cover part has an overall cross-sectional shape that is a one configuration selected from a group consisting L-shaped, channel-shaped (U-shaped), bent shaped, curved shaped, rounded shaped and a closed polygonal shaped configurations or a combination thereof, made from a plate like member or a plurality of said plate like members being integrally assembled to each other, wherein said length of said cover part in said longitudinal direction is longer than said length of said coil of said antenna part, wherein said angle of intersection formed by two straight lines joining said center of said antenna core part of said antenna part and two ends in said cross-section intersecting with said longitudinal direction of said cover part is at least  $90^\circ$ , wherein said cover part is made of either one of a ferrite-based soft magnetic material, a soft magnetic material in which a fine soft magnetic powder of cobalt or cobalt alloy is blended into a resin, or a compound soft magnetic material formed by said lamination of cobalt or cobalt alloy thin films see Ihara (figures 1, and 2, and paragraphs [0100-0103, and 0140]). It

As to claims 11, wherein said antenna core part is made of either one of ferrite-based soft magnetic material and a soft magnetic material in which a fine soft magnetic powder of cobalt or cobalt alloy is blended into a resin see Ihara (paragraph [0187]).

***Allowable Subject Matter***

3. Claims 15-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the Prior art does not explicitly disclose that the support part is a step part formed on a pair of mutually opposing surfaces of both end parts of said antenna core part; a magnetic gap of said joining part is either formed via a spacer, adhesive or said like, or formed as an air gap; contacting surface area of said antenna core part in said antenna part to said cover part is larger than said cross-sectional surface area of said cover part; a collector part that additionally collects magnetic flux of an external radio signal is formed of a soft magnetic material provided on both of said end parts of said antenna core part in said longitudinal direction in said antenna part; collector part is integrally formed as one body with said antenna core part on an outer wall part of both end portion of said antenna core part.

***Inquiries***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huedung Mancuso whose telephone number is (571) 272-1939.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens, can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Huedung Cao Mancuso/

Primary Examiner, Art Unit 2821